CLAIMS:

1. A power converter comprising:

an inductor (L) and a main switch (M1) having a main current path, the inductor (L) and the main current path being arranged in series for receiving a DC-input voltage (VIN),

a measuring circuit (MC) coupled to a junction (J1) of the inductor (L) and the main current path to obtain a measuring signal (MS) being indicative of a voltage across the main current path, and

a control circuit (CC) for controlling on-periods (Ton) and/or off-periods (Toff) of the main switch (M1) to stabilize an output voltage (VO) supplied to a load (LO), and having an input (IN) for receiving the measuring signal (MS) to protect the main switch (M1) against an overvoltage.

2. A power converter as claimed in claim 1, wherein the measuring circuit (MC) comprises a series arrangement of a diode (D) and a capacitor (C), the series arrangement of the diode (D) and the capacitor (C) being coupled in parallel with the inductor (L), the input of the control circuit (IN) being coupled to a junction (J2) of the series arrangement of the diode (D) and the capacitor (C).

3. A power converter as claimed in claim 2, wherein the diode (D) is coupled to the junction of the main switch (M1) and the inductor (L), the diode (D) being poled to be able to conduct during the off-period (Toff) of the main switch (M1).

4. A power converter as claimed in claim 3, wherein the measuring circuit (MC) comprises a resistor (R) coupled across the capacitor (C).

5. A power converter as claimed in claim 2, wherein the measuring circuit (MC) comprises a resistor divider (R1, R2) comprising a first resistor (R1) and a second resistor (R2), the first resistor (R1) being coupled between the junction (J2) of the capacitor (C) and

the diode (D) and the input (IN) of the control circuit (CC), the second resistor (R2) being coupled between the input (IN) of the control circuit (CC) and a fixed potential.

6. A power converter as claimed in claim 5, wherein the control circuit (CC) comprises:

a series arrangement of a further switch (S1) and a current-to-voltage converter (IVC), the series arrangement being coupled between the input (IN) and a reference potential,

a first comparator (AM1) for comparing a voltage at the input (IN) with a first reference voltage (VR1) when the further switch (S1) is open, and

a second comparator (AM2) for comparing a voltage at an output of the current to voltage converter (IVC) with a second reference potential (VR2) when the further switch (S1) is closed.

7. A power converter as claimed in claim 1, wherein the control circuit (CC) comprises an comparator (AM) for comparing the measuring signal (MS) with a reference signal (VR) to halt the operation of the power converter when the measuring signal (MS) crosses the reference signal (VR) indicating that a voltage across the main switch (M1) is higher than a particular value.

8. A power converter as claimed in claim 1, wherein the diode (D) and the capacitor (C) are dimensioned to operate as a peak-limiter.

9. An apparatus comprising the power converter (3) as claimed in claim 1.

10. An apparatus as claimed in claim 9, wherein the apparatus comprises

a processing circuit (1) for processing an input signal (IS) into an output signal (OS) to be made audible via a sound transducer and/or to be displayed on a display device (2) and

the power converter (3) as claimed in claim 1, wherein the load (LO) comprises the processing circuit (1).

11. A control circuit for use in the power converter (3) of any one of the preceding claims.